

REMARKS/ARGUMENTS

Claims 1 – 11 are presented for reconsideration and further examination in view of the foregoing amendments and following remarks.

In the outstanding Office Action, the Examiner objected to claim 10 as being a multiple dependent claim that depends from another multiple dependent claim; rejected claims 1 – 2, 7 and 9 – 11 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter referred to as "AAPA") in view of U.S. Patent No. 4,130,175 to Hehmann (hereinafter referred to as "the Hehmann '175 patent"); rejected claims 3 – 6 and 8 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of the Hehmann '175 patent and further in view of U.S. Patent No. 6,145,617 to Alts (hereinafter referred to as "the Alts '617 patent").

By this Response and Amendment, Applicants traverse the prior art rejections. It is respectfully submitted that no new matter under 35 U.S.C. §132 has been introduced to this application.

Objection to Claim 10

The Examiner objected to claim 10 as being a multiple dependent claim that depends from another multiple dependent claim.

Response

Applicants submit that claims 8 and 10 were previously amended in a preliminary amendment of June 9, 2005 to remove the multiple dependencies (as shown in the claims of the published version of present application). Nonetheless, Applicants resubmit the amendments as filed on June 9, 2005. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the objection to claim 10.

Rejections Under 35 U.S.C. §103(a)

The Examiner rejected claims 1, 2, 7 and 9 – 11 as being unpatentable over AAPA in view of the Hehmann '175 patent. Also, the Examiner rejected claims 3 – 6 and 8 as being unpatentable over AAPA in view of the Hehmann '175 patent and further in view of the Alts '617 patent.

Response

By this Response and Amendment, Applicants respectfully traverse the Examiner's rejection since the prior art reference does not disclose, teach or suggest all of the features of the presently claimed invention. To establish a *prima facie* case of obviousness, the Examiner must establish: (1) some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) the prior art references teach or suggest all of the claim features. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Independent claim 1 recites an "[a]n ultralight trim composite (1) comprising a first acoustically effective layer (4) and a second underlay layer (5), characterized in that for the balancing of the absorption and sound transmission behaviour of the composite, the first acoustically effective layer (4) has an air flow resistance R between 500 Ns/m^3 and $10,000 \text{ Ns/m}^3$..., the second underlay layer (5) has a very low compression force deflection modulus, i.e. a stiffness value S_D in the range between 100 Pa and 100,000 Pa"

The AAPA discloses various composites that have been used in an attempt to reduce noise in motor vehicles. The Hehmann '175 patent discloses an acoustic suppression panel having a perforated plate covering a layer of absorber. The Alts '617 patent discloses a kit for reducing noise

in motor vehicles. The kit has a sound insulating assembly package that has several layers and an air layer.

In contrast to the presently claimed invention, the cited prior art combinations do not disclose, teach or suggest that a “second underlay layer (5) has a very low compression force deflection modulus, i.e. a stiffness value S_D in the range between 100 Pa and 100,000 Pa” as recited in independent claim 1. The Examiner asserts that it would have been obvious to select components with such stiffness values since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. However, Applicants submit that, pursuant to comparative testing done on a physical embodiment having the feature recited in independent claim 1 and an alpha cabin, the presently claimed subject matter has been shown to have unexpected results over the prior art. In the Appendix to this paper, Applicants submit a declaration showing the results of the comparative test.

In further contrast to the presently claimed subject matter, the cited prior art combinations do not disclose, teach or suggest that “the first acoustically effective layer (4) has an air flow resistance R between 500 Ns/m^3 and $10,000 \text{ Ns/m}^3$ ” as recited in independent claim 1. The Hehmann ‘175 patent discloses a panel having an air flow resistance of between 20 to 90 cgs Rayls, which is equal to 20 to 90 Ns/m^3 and almost four hundred Ns/m^3 lower than the lower end of the presently claimed subject matter! As such, a person having ordinary skill in the art would not have been motivated by the Hehmann ‘175 patent to reach an air flow resistance of between 500 Ns/m^3 and $10,000 \text{ Ns/m}^3$ because the Hehmann ‘175 patent teaches away from the air flow resistance of the presently claimed subject matter.

Therefore, the cited prior art combinations do not render the presently claimed subject matter obvious since they do not disclose, teach or suggest all of the features of independent claim 1. Thus,

Appl. No. 10/538,494
Reply to Office Action of December 19, 2006
Attorney Docket No. 26759U

claim 1 is asserted to be patentable over the cited prior art combinations. Similarly, as dependent claims necessarily recite all of the features of the dependent claims from which they depend, the remaining claims, which all ultimately depend from claim 1, are asserted to be patentable over the cited prior art combinations for at least the same reasons as independent claim 1. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections.

CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

THE NATH LAW GROUP

Date: June 19, 2007
THE NATH LAW GROUP
112 South West Street
Alexandria, VA 22314
(703) 548-6284

By: 

Gary M. Nath
Registration No. 26,965
Jerald L. Meyer
Registration No. 41,194
Derek Richmond
Registration No. 45,771
Customer No. 20529

Appl. No. 10/538,494
Reply to Office Action of December 19, 2006
Attorney Docket No. 26759U

APPENDIX

Application Serial No. 10/538,494
Attorney Docket No. 26759U

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Inventor: KHAN et al.
Serial No. 10/538,494
Filed: June 9, 2005
Title: Ultralight Trim Composite

Confirmation No. 7006
Examiner: F. Phillips
Art Unit: 1755

DECLARATION UNDER 37 C.F.R. 1.132

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22231-1450

The undersigned:

- 1.1 SEIFERT Hans Ulrich
- 1.2 Citizen of Zurich, Switzerland
Resident:
Sustenweg 1
8200 Schaffhausen
Switzerland
- 1.3 Not being an inventor.
- 1.4 Acting as patent attorney for this invention.
- 1.5 Having a degree in physics and working in the field of the inventors since 18 years.
- 2.1 I have intensively studied the Official Action dated December 19, 2006 as well as the background of the present application and the applied prior art U.S. Patent No. 4,130,175 to Hehmann (hereinafter referred to as "the Hehmann '175 patent") and U.S. Patent No. 6,145,617 to Alts (hereinafter referred to as "the Alts '617 patent"). I am aware that the Examiner rejected claims 1, 2, 7 and 9-11 under 35 U.S.C. §103 (a) as obvious over the background of the present application in view of the Hehmann '175 application and rejected claims 3-6 and 8 under 35 U.S.C. §103(a) as being obvious over the background of the present application in view of the Alt's '617 patent.
- 2.2 In order to show that the presently claimed Ultralight Trim Composite, which has an air flow resistance of between 500Ns/m^3 and $10,000\text{Ns/m}^3$, is patentably distinct over the composite disclosed in the background of the present application in combination with the "Suppression Panel" disclosed in the Hehmann '175 patent, no comparative tests have been carried out, since the subject matter of the Hehmann '175 patent generates an air flow resistance of between $20-90\text{Ns/m}^3$ and belongs to an other technical field.
- 2.3 In order to show that the presently claimed ultralight trim composite (lining, carpet), which has a stiffness value of between 100 Pa and 1000,000Pa, is patentably distinct over the composite disclosed in the background of the present application in combination with the "Suppression Panel" disclosed in the Hehmann '175 patent, no

comparative tests have been carried out, since the subject matter of the Hehmann '175 patent is silent about the stiffness and belongs to an other technical field

3.1 Comparative Testing

3.2. In order to show that the ultralight composite structures as recited in the claims of the present application are patentably distinct from the background of the present application comparative tests were undertaken with a prototype having the features as recited claim 1 of the present application.

3.3 This comparative testing has been made with an alpha cabin (well known in the art) in order to determine the frequency dependent absorption coefficient and by a J1400 sound transmission loss test (well known in the art) in order to determine the frequency dependent sound transmission loss.

3.4 The results of these tests are herewith enclosed. The alpha cabin measurements proof that the samples in accordance with the invention show much better sound absorption than polyback or massback carpets. The J1400 measurements proof that the samples in accordance with the invention show much better sound transmission loss than polyback or massback carpets.

3.5 The increase of absorption performance and insulation (transmission loss) performance at the same time is unexpected. The stiffness value of between 100Pa and 100,000Pa and the used mass of the layers are essential to obtain such a performance. The teaching of Hehmann '175 patent is not giving any hint to use these parameters.

4.1 All statements made herein of my own knowledge are true. All statements made herein upon information and belief are believed to be true. I understand that wilful false statements and the like are punishable by fine or imprisonment, or both, under the provisions of 18 U.S.C. 1001, and may jeopardize the validity of the application or any parent issuing thereon.

4.2. Further, declarants sayeth naught.

4.3. WITNESS my signature below on the indicated date.

18. June 2007

Date

L. Seifert

Declarant

18. JUNE 2007

Date

Barbara Bono

Witness

Encl.

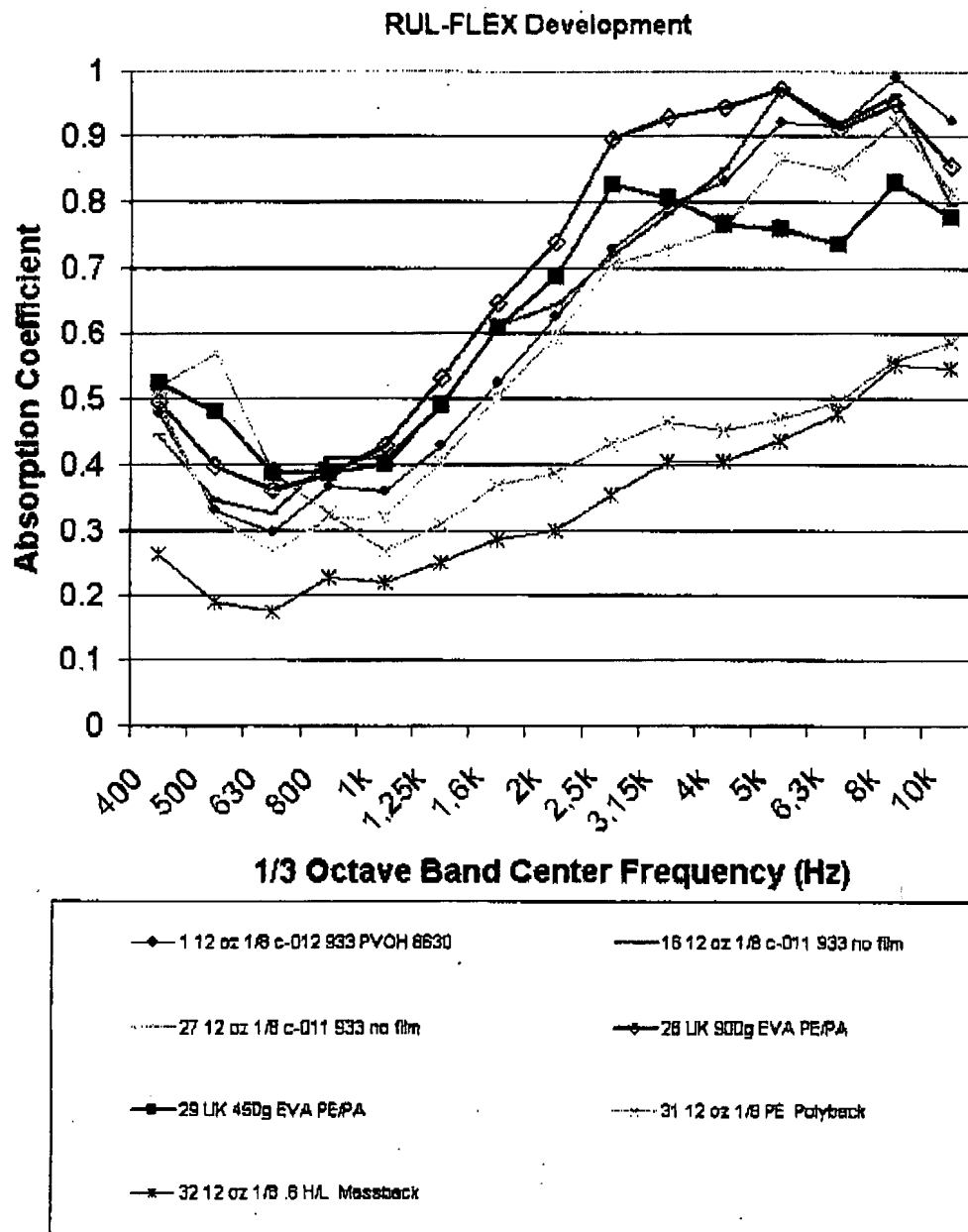


Figure 1. Alpha Cabin Absorption: PVOH film melted, all RUL-FLEX samples have similar sound absorption, much better than polyback and massback carpet.

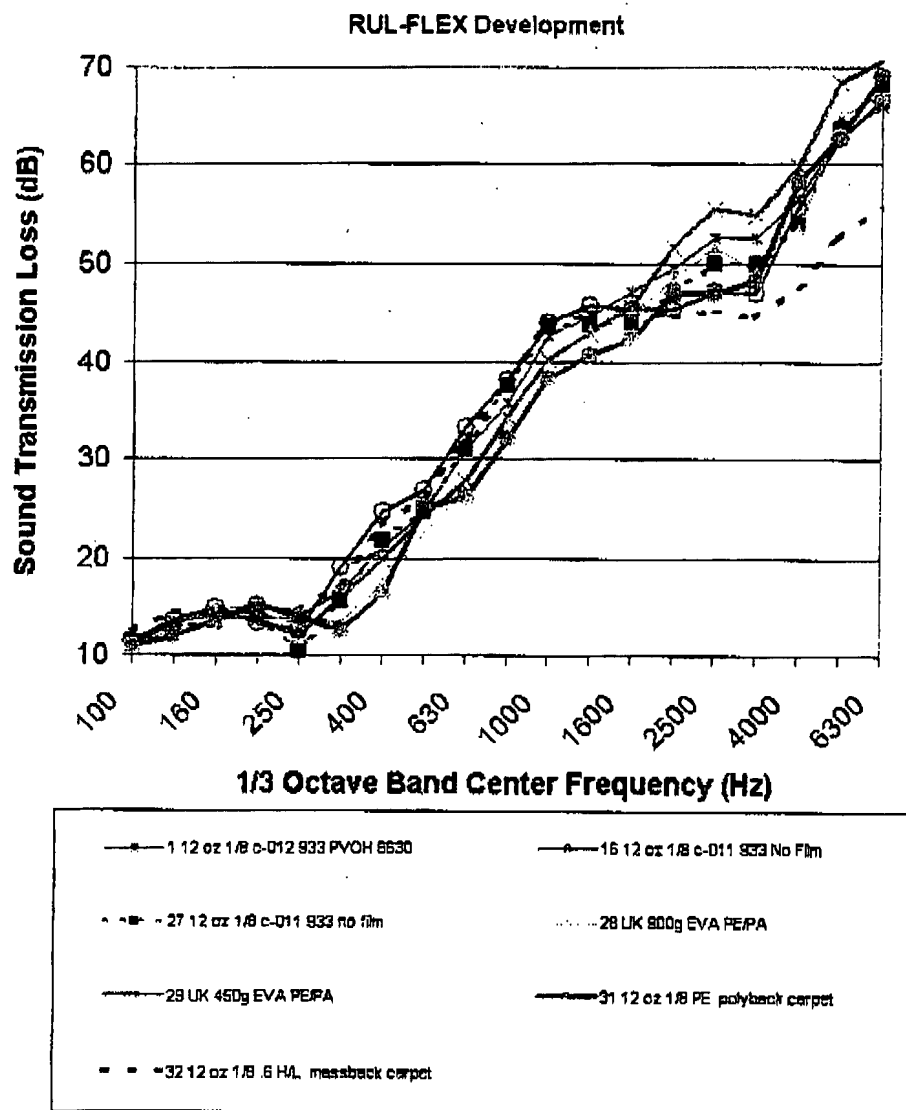


Figure 2. J1400 Sound Transmission Loss Tests: PVOH film melted, All RUL-FLEX samples have similar sound transmission loss, higher than polyback carpet, similar to massback carpet.